

## NOTES ON WEST INDIAN ORCHIDS, II \*

LESLIE A. GARAY AND HERMAN R. SWEET

During the preparation of the orchid manuscript for the *Flora of the Lesser Antilles* by Richard A. Howard of Harvard University, we have noted several nomenclatorial changes and have found a *Dichaea* species yet undescribed. Since the actual floristic presentation is not designed to incorporate new changes or descriptions of new species, our findings are presented here.

***Elleanthus cephalotus* Garay & Sweet, nom. nov.**

BASIONYM: *Bletia capitata* R. Br. in Ait. Hort. Kew. ed. 2. 5: 206. 1813.

SYN.: *Elleanthus capitatus* (R. Br.) Rchb.f. ex Cogn. in Urb. Symb. Antill. 6: 561. 1910; Stehlé, Fl. Descr. Antill. Fr. 1: 176. 1939. TYPE: West Indies, without proper locality. Introduced by Sir Joseph Banks in 1795 and flowered at Kew Gardens (BM).

*Evelyna capitata* Poepp. & Endl. Nov. Gen. ac Sp.Pl. 1: 32. 1836.

*Elleanthus capitatus* (Poepp. & Endl.) Rchb.f. in Walp. Ann. Bot. Syst. 6: 475. 1862; Schultes in Am. Orchid Soc. Bull. 25: 387. 1956. TYPE: Peru, near Pampayaco. *Poeppig s.n.!* (w).

It is most unfortunate that the well-known descriptive name of *Elleanthus capitatus* has to be changed. This species has been described twice; first as *Bletia capitata* R. Br. and later as *Evelyna capitata* Poepp. & Endl. Recognizing that *Elleanthus* is the correct generic name, Reichenbach transferred *Evelyna capitata* to that genus. Cogniaux having found that *Bletia capitata* and *Evelyna capitata* were one and the same, because of the same specific epithet, he wrongly combined Robert Brown's epithet with Reichenbach's transfer. Because the specific epithet 'capitata' is preoccupied in *Elleanthus*, the transfer of *Bletia capitata* necessitates the new name proposed above.

***Eltroplectris calcarata* (Sw.) Garay & Sweet, comb. nov.**

BASIONYM: *Neottia calcarata* Sw. Fl. Ind. Occ. 3: 1413. t.28. 1804. TYPE: Dominican Republic, without proper locality. *Swartz s.n.* (s).

SYN.: *Pelexia setacea* Lindl. Gen. and Sp. Orch. Pl. 482. 1840; Cogn. in Urb. Symb. Antill. 6: 327. 1909.

*Centrogenium setaceum* (Lindl.) Schltr. in Beih. Bot. Centralbl. 37(2): 453. 1920; Schultes in Am. Orchid Soc. Bull. 25: 387. 1956. TYPE: Brazil, Rio Doce. *Prince Maximilian Wiedens s.n.!* (M, w).

We have examined a large series of specimens from the entire area of distribution, and have found that the margin of the lip may vary from

\* Continued from Jour. Arnold Arb. 50: 462-468. 1969.

entire to erose-denticulate or to almost fimbriate. Hence, *Neottia calcarata* and *Pelexia setacea* merely represent the two extremes in a single variation pattern.

***Pleurothallis ophioglossoides* (Jacq.) Garay & Sweet, comb. nov.**

**BASIONYM:** *Epidendrum ophioglossoides* Jacq. Enum. Syst. Pl. 29. 1760, based on *Helleborine ophioglossa similis*, Plum. Cat. 9. 1703, and Icon. Burm. t. 176, f.3. 1759, not *Epidendrum ophioglossoides* Jacq. Sel. Stirp. Am. Hist. 225. 1763. **TYPE:** Martinique, without proper locality. *Plumier s.n.* (P). Holotype is Plumier's original drawing.

**SYN.:** *Specklinia floribunda* Lindl. Gen. and Sp. Orch. Pl. 9. 1830. *Pleurothallis floribunda* (Lindl.) Lindl. in Bot. Reg. 28: misc. p. 73. 1842, not Poepp. & Endl. 1836; Rolfe in Kew Bull. 277. 1893; Cogn. in Urb. Symb. Antill. 6: 421. 1909; Stehlé, Fl. Descr. Antill. Fr. 1: 205. 1939; Hodge in Lloydia 17: 213. 1954. **TYPE:** Martinique, without proper locality. *Sieber 206!* (K, W).

When Jacquin described *Epidendrum ophioglossoides* in 1760, he based his description on Plumier's polynomial of 1703 as well as on Plumier's drawing published subsequently by Burmann in 1759. Three years later, Jacquin published a new description of *Epidendrum ophioglossoides* without any reference to his 1760 paper, which he prepared from one of his own collections and which he assumed to be identical with Plumier's plates. Fortunately Jacquin's collection of that particular plant is in the British Museum. We have examined this specimen and it represents *Stelis scabrida* Lindl. A closer examination of Plumier's drawing immediately brings into focus the error in Jacquin's judgment, for Plumier's drawing is a true *Pleurothallis*, generally known as *P. floribunda* (Lindl.) Lindl.

Swartz in his *Observationes Botanicae* 332. 1791, already called attention to Jacquin's misidentification: "Plantae Plumieri & Jacquini certe distinctae. . . . Jacquini vero ad *E. trigoniflorum* (prodr. p. 125.) pertinet, affirmante planta Ipsius in Museo Banksiano serata." Notwithstanding his own observations, when he established the genus *Stelis* in 1800, Swartz followed Jacquin in proposing the new combination, *Stelis ophioglossoides* with his own *E. trigoniflorum* in synonymy. This mistake has been carried through to today for *Epidendrum ophioglossoides* became the conserved type of the genus *Stelis*. To prevent the transfer of over 1,000 species of *Pleurothallis* into the genus *Stelis*, the retypification of the genus *Stelis* will be published in a separate paper.

***Octomeria apiculata* (Lindl.) Garay & Sweet, comb. nov.**

**BASIONYM:** *Pleurothallis apiculata* Lindl. Folia Orch. Pleurothallis 17, no. 88. 1859. **TYPE:** Venezuela, without proper locality. *Fendler 2155!* (K-L).

An examination of the type specimen of *Pleurothallis apiculata* has shown it to possess eight pollinia, one of the chief characters of the genus

*Octomeria*. A new and emended description of this species is given here for convenience.

Epiphyte. Primary stem or rhizome scandent, often covered with fibrous remnants of sheaths. Secondary stems rather slender, obliquely ascending, enclosed by 3 to 4 imbricating tubular scarious sheaths, up to 4.5 cm. long, proportionately (1:1) as long as or somewhat shorter than terminal leaf. Leaves coriaceous, narrowly ovate-elliptic to oblong-elliptic, acute, basally contracted into a short, up to 4 mm. long, petiole, including the petiole up to 6.5 cm. long and 7 mm. wide. Inflorescence fasciculate, 1- to 2-flowered. Flowers rather thin in texture, yellow, fragrant. Sepals similar, ovate to ovate-lanceolate, acute, 3–5 mm. long and 2 mm. wide. Petals ovate to rhombic-ovate, acute or acuminate, occasionally somewhat contracted below the tip, hence appearing apiculate, up to 4.5 mm. long and 1.5 mm. wide. Lip fleshy with distinct claw, 3-lobed; lateral lobes erect, more or less angular, midlobe ovate to oblong-ovate, obtuse or more or less 3-dentate at apex, margins erose-denticulate, disc provided with a pair of obliquely inserted fleshy lamellae at junction of midlobe and lateral lobes; whole lip up to 3 mm. long and 2 mm. wide. Column somewhat arcuate, up to 2 mm. long. Pedicellate ovary up to 4 mm. long.

General Distribution: Nicaragua, Costa Rica, Venezuela, Trinidad, Tobago, Grenada, and Guadeloupe.

*Epidendrum latifolium* (Lindl.) Garay & Sweet, stat. nov.

FIGURE 1.

BASIONYM: *Epidendrum nocturnum* var. *latifolium* Lindl. in Bot. Reg. 23: t. 1961. 1837; Cogn. in Urb. Symb. Antill. 6: 523. 1910; Stehlé, Fl. Descr. Antill. Fr. 1: 144. 1939. TYPE: West Indies. Introduced and cultivated by Paxton s.n.! (K-L).

The strongly ancipitous stem, large elliptic leaves, sessile, 1-flowered inflorescence, and the flowers twice as large show no intergradation with *Epidendrum nocturnum* to which *E. latifolium* was formerly attached as a variety.

*Epidendrum latifolium* is known from the Greater and Lesser Antilles, Trinidad, and Venezuela.

*Epidendrum secundum* Jacq. Enum. Syst. Pl. 29. 1760, based on *Helborine purpurea umbellata* Plum. Cat. 9. 1703 and Icon. Burm. 179. t. 184, f.1. 1759, not Jacq. Select. Stirp. Am. Hist. 224. t. 137. 1763.

SYN.: *Epidendrum fuscatum* Smith, Spicileg. Bot. fasc. 2: 21. t. 23. 1792, nom. superfl. TYPE: Martinique, without proper locality. Plumier s.n. (P). Holotype is Plumier's original drawing.

*Epidendrum anceps* Jacq. Select. Stirp. Am. Hist. 224. t. 138. 1763; Select. Stirp. Am. Hist., ed. icon. arch. pict. 108. t. 208. 1781; Boldingh, Fl. St. Eustat., Saba and St. Martin 41. 1909; Cogn. in Urb. Symb. Antill. 6:

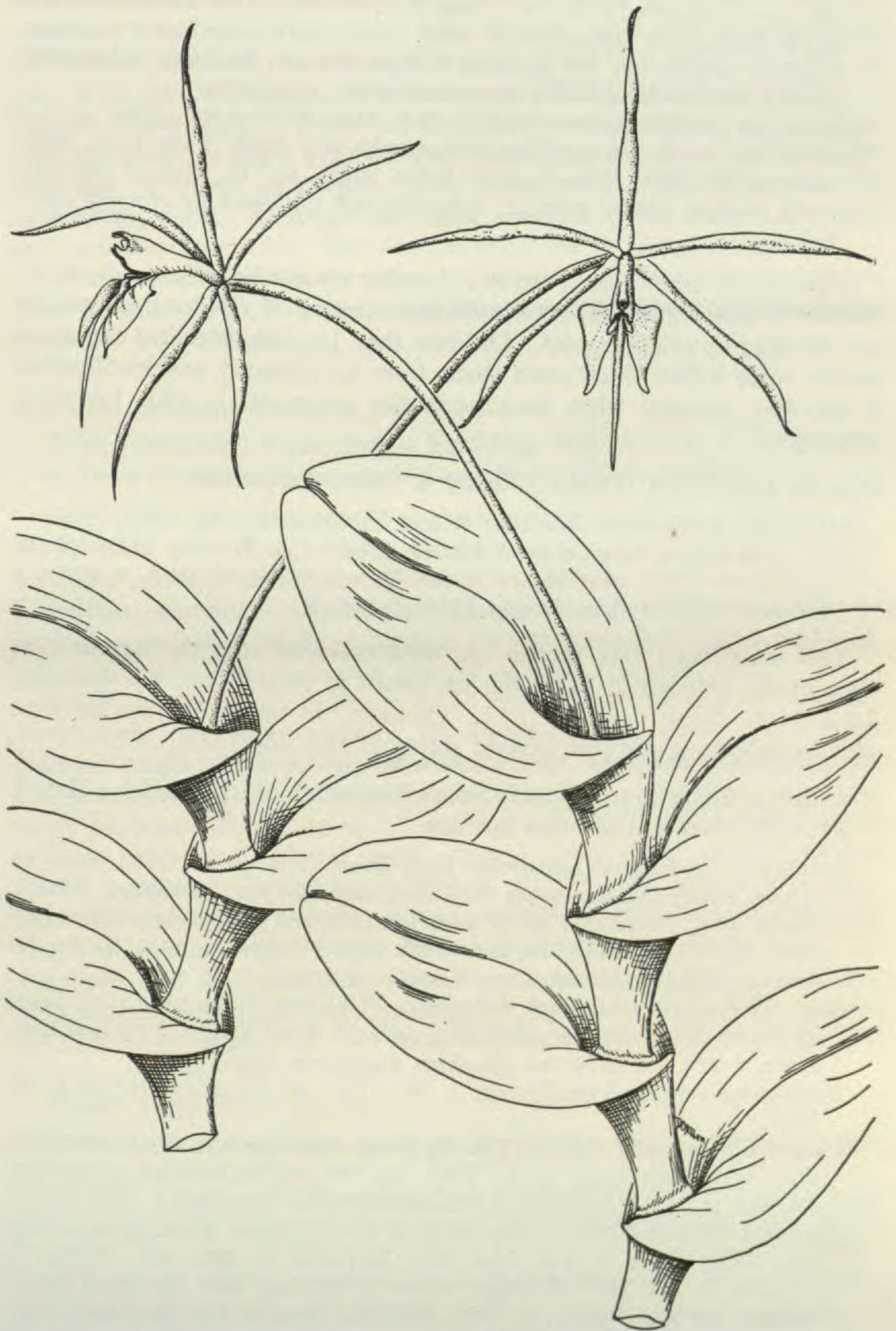


FIGURE 1. *Epidendrum latifolium* (Lindl.) Garay & Sweet. Drawn by Dorothy Allen.

516. 1910; Stehlé, Fl. Descr. Antill. Fr. 1: 134. 1939; Hodge in Lloydia 17: 205. 1954; Schultes in Am. Orch. Soc. Bull. 25: 387. 1956; Goodring, Loveless & Proctor, Fl. Barbados 112. 1965. TYPE: Martinique, without proper locality. *Jacquin s.n.* No specimen is known to us. Holotype is Jacquin's original illustration of which reproductions are cited above.

*Epidendrum viridipurpureum* Hook. in Bot. Mag. 65: t. 3666. 1838.

*Epidendrum anceps* var. *viridipurpureum* (Hook.) Lindl. Folia Orch. Epidendrum 66. 1853; Cogn. in Urb. Symb. Antill. 6: 518. 1910. TYPE: Jamaica, without proper locality. Imported and cultivated by *Horsfall s.n.!* (K).

It should be noted that Plumier's drawing upon which *Epidendrum secundum* is based and the description and drawing of *Epidendrum anceps* are identical in every respect. The fact that Jacquin described the same species twice within three years stems from his repeated misidentification of his own material when he superficially compared it with Plumier's drawings.

**Pinelia Leochilus** (Rchb.f.) Garay & Sweet, comb. nov.

BASIONYM: *Epidendrum Leochilus* Rchb.f. in Flora 48: 277. 1865.

SYN.: *Pleurothallis tuberculata* Wright ex Griseb. Cat. Pl. Cub. 262. 1866, in syn. TYPE: Cuba, near Monte Verde. Flowers yellowish green or white, a red spot on the anther. *Wright 3346!* (AMES, W).

This exceedingly rare species has been collected recently for the first time in the Dominican Republic: on banks of Mao River, El Aguacate, La Leonor. *Liogier 13210!* (NY). Through this new collection we were able to determine the true generic status of this tiny plant.

**Oncidium altissimum** (Jacq.) Sw. in Vet.-akad. Stockholm Nya Handl. 21: 240. 1800, not of other authors.

BASIONYM: *Epidendrum altissimum* Jacq. Enum. Syst. Pl. 30. 1760, based on *Viscum radice bulbosa majus & elatius, delphinii flore ferrugineo guttato*, Sloane, Hist. Jamaica 1: 250. t. 148, f.1. 1707, not Jacq. Select. Stirp. Am. Hist. 229. t. 141. 1763; ed. icon. arch. pict. 110. t. 215. 1781. TYPE: Jamaica, without proper locality. *Sloane s.n.!* (BM).

SYN.: *Epidendrum maculatum* Aubl. Hist. Pl. Guiane Fr. 2: 825. 1775, based on *Helleborine maculosa, foliis aloës carinatis* Plum. Cat. 9. 1703 and Icon. Burm. t. 178, f.2. 1759, not *Oncidium maculatum* Lindl. 1841.

*Epidendrum crispum* Lam. Encycl. 1: 186. 1783, not *Oncidium crispum* Lodd. 1832.

*Oncidium maculatum* (Aubl.) Urb. in Fedde Rep. 15: 306. 1918, not *Oncidium maculatum* Lindl. 1841. TYPE: St. Vincent, without proper locality. *Plumier s.n.* (P). Holotype is Plumier's original drawing.

*Oncidium luridum* Lindl. in Bot. Reg. 9: t. 727. 1823; Rolfe in Kew Bull. 278. 1893; Duss in Ann. Inst. Col. Marseille 3: 600. 1897; Hodge in Lloydia 17: 221. 1954; Schultes in Am. Orchid Soc. Bull. 25: 391. 1956.

*Oncidium guttatum* Rchb.f. in Walp. Ann. Bot. Syst. 6: 782. 1863, excl. syn.; Cogn. in Urb. Symb. Antill. 6: 647. 1910; Kraenzlin in Pflanzenr. IV. 50. Heft 80: 33. 1922; Stehlé, Fl. Descr. Antill. Fr. 1: 248. 1939. TYPE: Introduced from South America and cultivated by *Griffin s.n.!* (K-L).

When Jacquin described *Epidendrum altissimum* in 1760, his description was based on a polynomial and an illustration in Sloane's *Hist. Jamaica* 1: t. 148, f. 1. Three years later Jacquin redescribed and illustrated an entirely different plant as *Epidendrum altissimum* which he based on one of his own collections. We have examined the Sloane material in the British Museum and it represents the plant commonly known as *Oncidium luridum* Lindl., a plant very different from Jacquin's picture. Hence, the binomial *Oncidium altissimum* (Jacq.) Sw. is the correct name for this widespread plant. Although this same conclusion was reached by Fawcett and Rendle in 1910, they did not effect the necessary change.

On the other hand, the correct name for those plants which were named with the aid of Jacquin's plate of *Epidendrum altissimum* of 1763, is *Oncidium Wydleri* Rchb.f.

***Dichaea Hookeri* Garay & Sweet, sp. nov.**

FIGURE 2.

TYPE: Dominica, moist forests bordering Pegoua river in the vicinity of Deux Branches, Concorde Valley. *Hodge* 3481! (AMES).

Epiphytica, caespitosa; caulibus erectis vel pendentibus, compressis, foliatis, foliis patentibus, oblongo-ligulatis, acutis, mucronulatis, margine sub lente papilloso-ciliolatis; inflorescentiis unifloris; sepalo postico ovato-lanceolato, acuminato; sepalis lateralibus obliquis; petalis lanceolato-ellipticis, acuminatis; labello e cuneata basi anchoriformi, lobis acuminatis, retrorsis, antice rotundato cum apiculo minuto; ovario glabro.

Epiphytic, caespitose herbs up to 15 cm. tall. Stems erect to pendent, compressed, completely enclosed by imbricating leaf-bases. Leaves deciduous, length of leaves very uneven on stem, articulate, oblong-ligulate to linear-oblong, acute, indistinctly mucronate, the upper edge under lens finely papillose-ciliolate, up to 2.5 cm. long and 6 mm. wide. Inflorescence axillary, 1-flowered. Flower small, ringent, greenish to greenish yellow. Dorsal sepal ovate-lanceolate, acuminate, up to 5 mm. long and 2.5 mm. wide. Lateral sepals oblique, ovate-lanceolate, acuminate, up to 6 mm. long and 3 mm. wide. Petals lanceolate-elliptic, acuminate, up to 4.5 mm. long and 2.5 mm. wide. Lip from a cuneate base anchor-shaped with retrorse acuminate lobes, rounded in front with a small inconspicuous apicule in middle, up to 5 mm. long and 5 mm. wide when spread. Column cylindrical. Ovary sessile, glabrous.

Flowers from March to July.

DISTRIBUTION. **Guadeloupe:** Mateliane, *Stehlé* 456! (AMES); Saralle, *Questal* 4735! (P); without proper locality, *L'Herminier* s.n.! (P); Hauteurs de Goyave, *Stehlé* 961! (AMES, NY). **Dominica:** La Chaudiere, Hampstead river, *Hodge* 3509! (AMES). **St. Vincent:** without proper locality, *Guilding* s.n.! (K). **Trinidad:** Aripo, *Broadway* 2330! (AMES); Mora forest, *R. O. Williams* s.n.! (AMES). **Island Margarita:** without proper locality, *J. R. Johnston* 242! (AMES). **Venezuela:** Guatopo, *Dunsterville* 339! (AMES).

Specimens referable to this species have been erroneously reported in the literature as *Dichaea Cogniauxiana* Schltr., *D. graminoides* (Sw.)

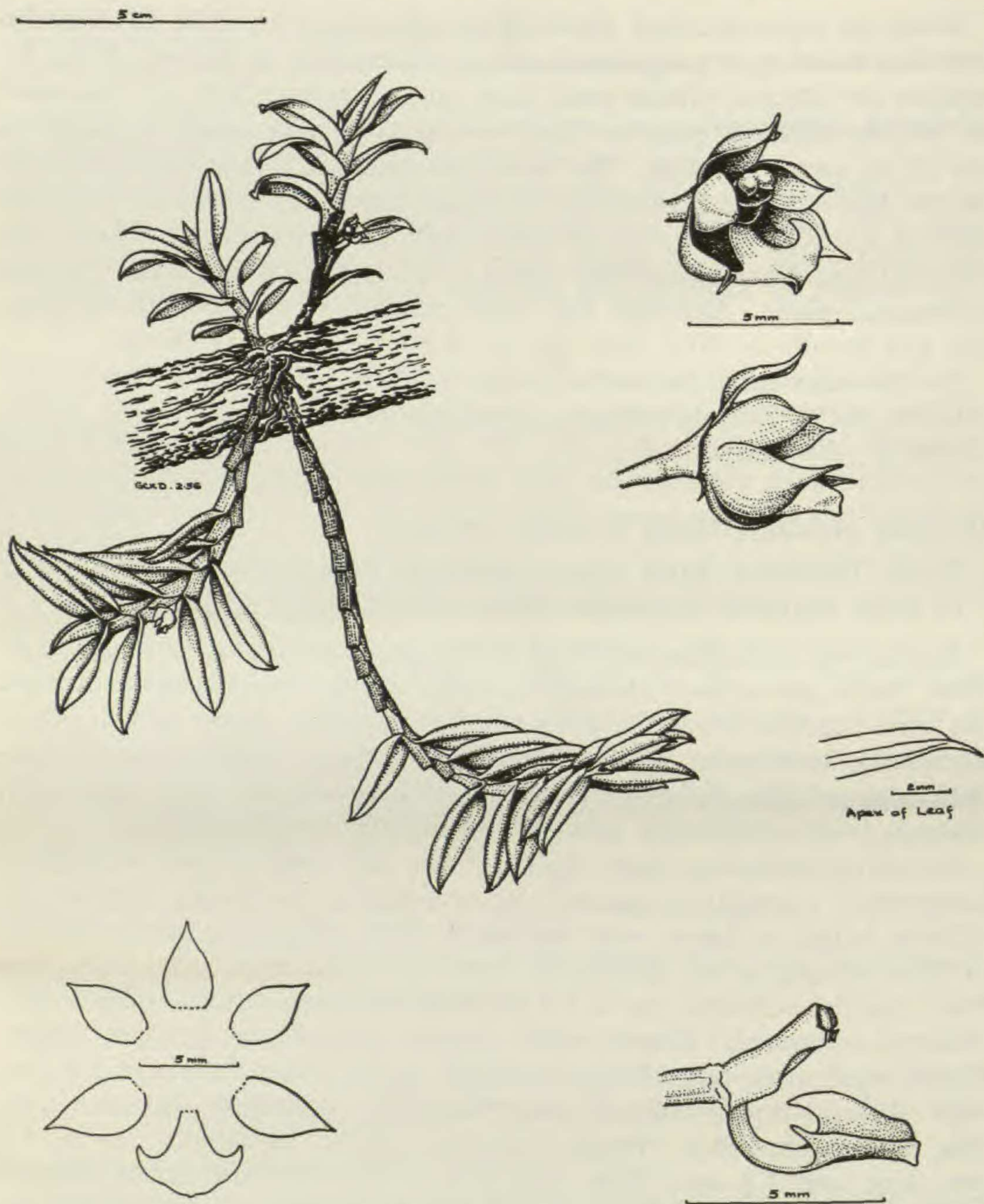
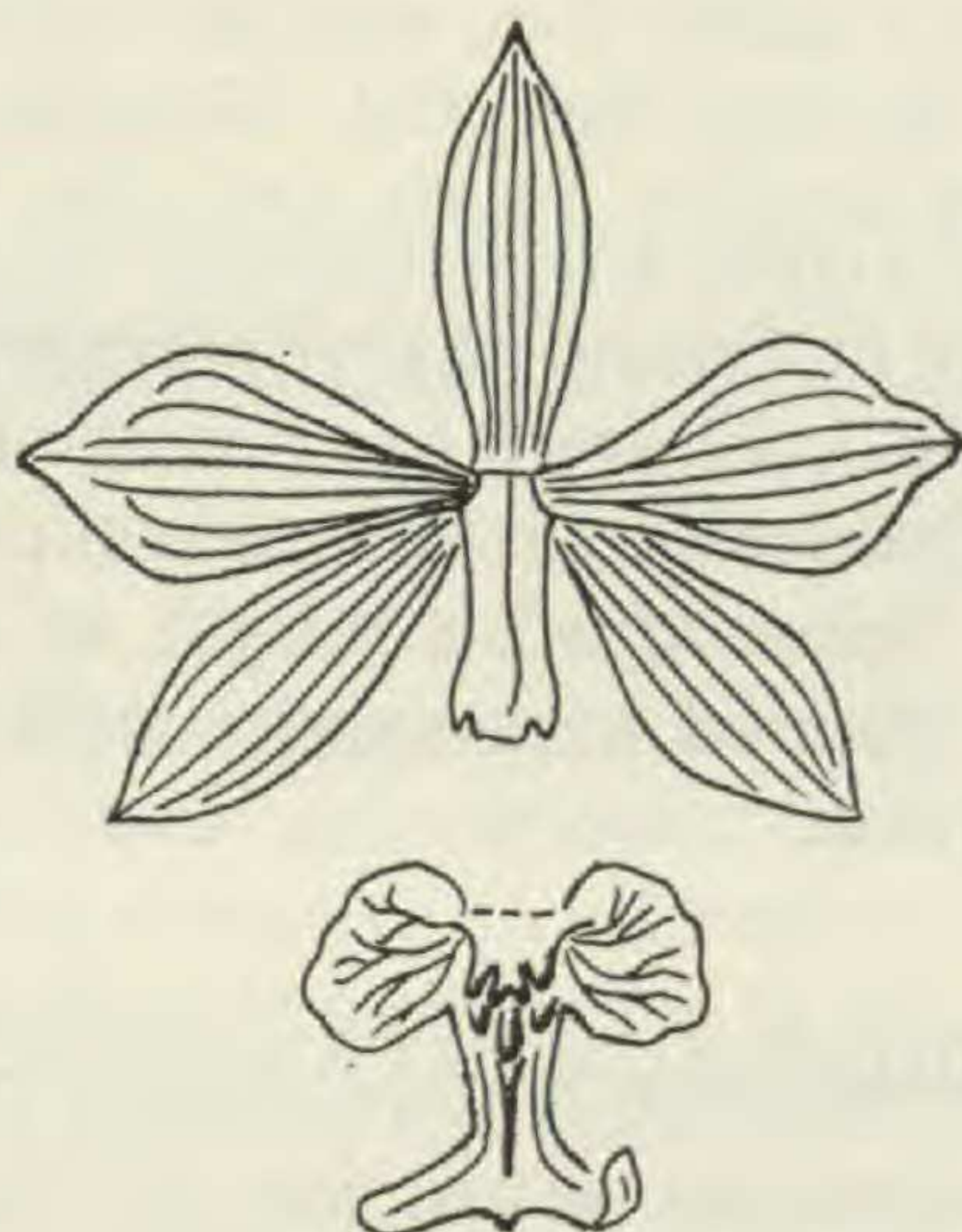
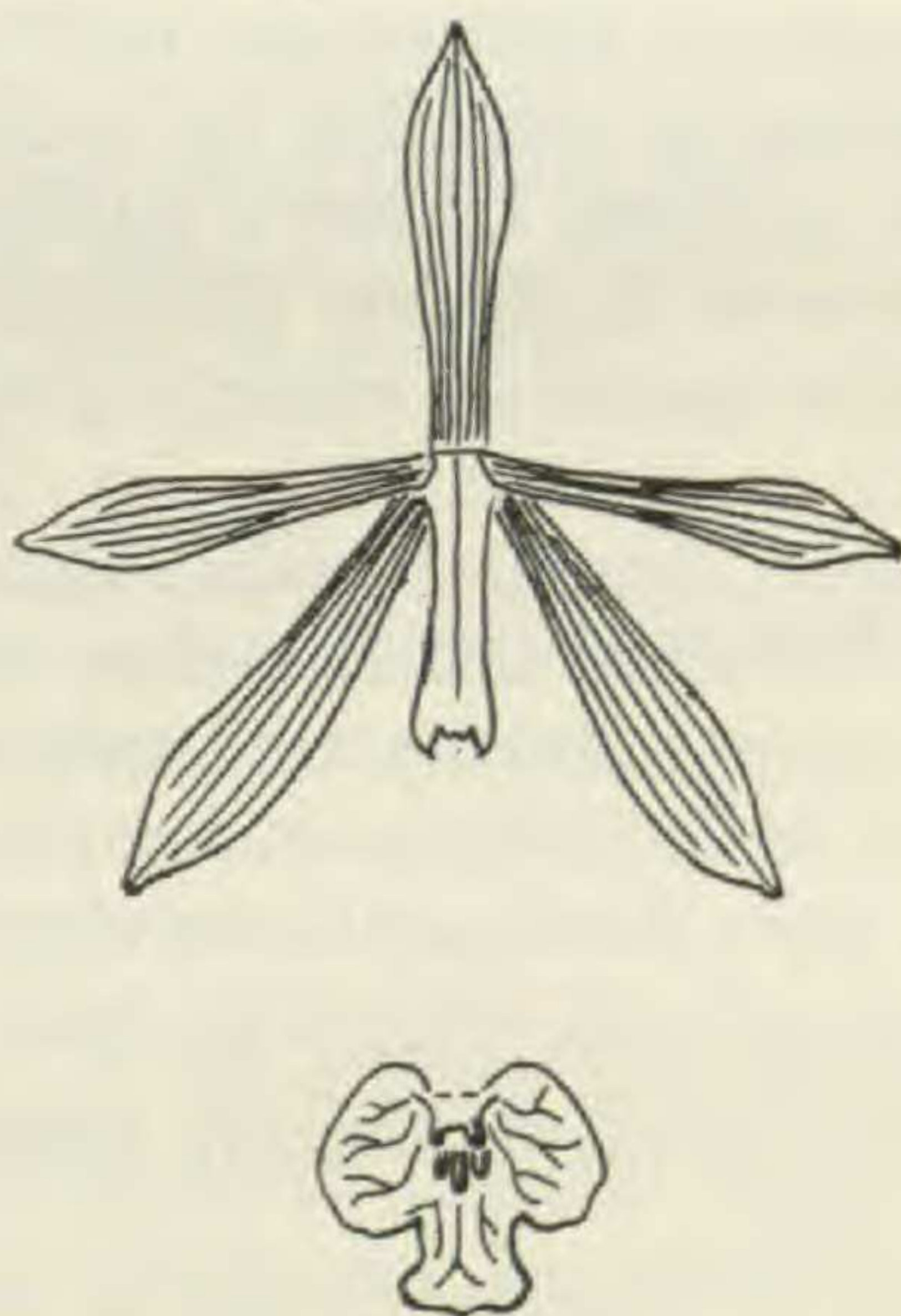
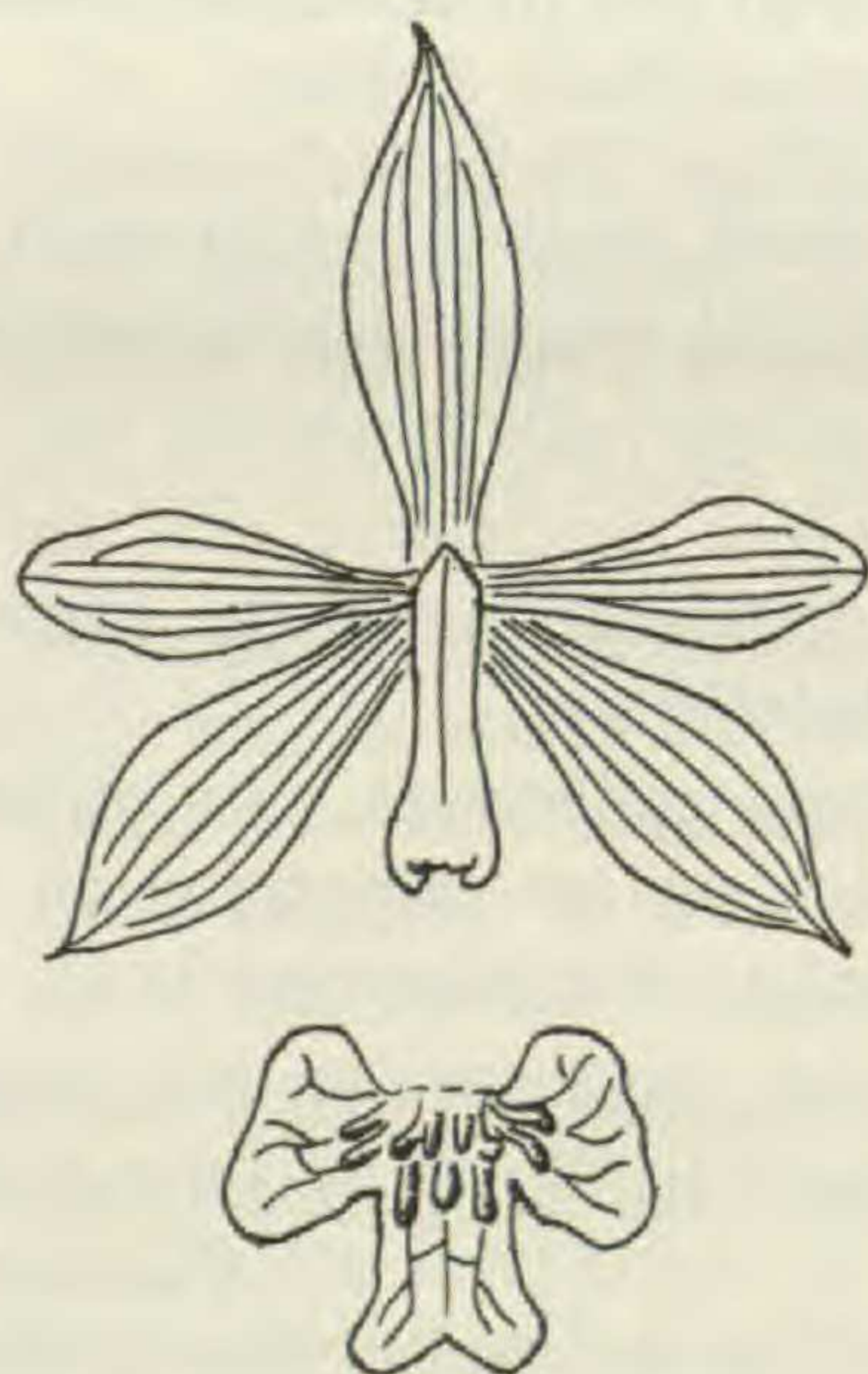


FIGURE 2. *Dichaea Hookeri* Garay & Sweet. Drawn by G. C. K. Dunster-ville.

Lindl., *D. picta* Rchb.f., and *D. Rendlei* Gleason. The first illustration of *D. Hookeri* appeared in Hooker, *Exotic Flora* 3: *t.* 196. 1826, as *Isochilus graminoides* (Sw.) Lindl. Hooker's plate was based on the above cited collection from St. Vincent (not Trinidad as stated) and it is so marked on the herbarium sheet. Gleason's contention that Hooker's plate represented *D. Rendlei* is incorrect since a comparison of the original material from which the plate was prepared with that of the type of *D. Rendlei* has shown them to be distinct.



EPIDENDRUM PATENS SW.



EPIDENDRUM MUTELIANUM COGN.

EPIDENDRUM PALLIDIFLORUM HOOK.

FIGURE 3. Details of flowers of *Epidendrum patens* Sw., *E. Mutelianum* Cogn., and *E. pallidiflorum* Hook. Drawn by Magdalena Peña de Sousa.

*Dichaea Swartzii* (C. Schweinf.) Garay & Sweet, stat. nov.

BASIONYM: *Dichaea pendula* var. *Swartzii* C. Schweinf. in Bot. Mus. Leafl. Harvard Univ. 17: 62. 1955.

SYN.: *Epidendrum echinocarpon* Sw. Nov. Gen. & Sp. Pl. Prodr. 124. 1788, nom. illeg. excl. syn.



*Dichaea echinocarpa* (Sw.) Lindl. Gen. and Sp. Orch. Pl. 208. 1833, *nom. illeg. excl. syn.*; Duss in Ann. Inst. Col. Marseille 3: 596. 1897. TYPE: Jamaica, without proper locality. *Swartz s.n.!* (BM, s).

The original contention of Swartz that *Epidendrum echinocarpon* Sw. and *Epidendrum pendulum* Aubl. were one and the same species has been seriously questioned by Schweinfurth. In examining all of the available evidence we have found Schweinfurth's insight so justified that we recognize the West Indian material as a species separate from *D. pendula* (Aubl.) Cogn. from Guyana.

### THE EPIDENDRUM PATENS COMPLEX

The three species, *Epidendrum patens* Sw., *E. Mutelianum* Cogn., and *E. pallidiflorum* Hook. have been thoroughly confused with one another in the literature. With the exception of the original diagnosis, all subsequent descriptions are mixtures and none may be used with certainty for identifications.

The original confusion was started by Lindley who misinterpreted Swartz's diagnosis of *E. patens* and applied it to one of the South American species of *Epidendrum*, namely *E. coronatum* Ruiz & Pav.

Cogniaux in preparing the orchid treatment for Urban's *Symbolae Antillanae* accepted Lindley's interpretation of *E. patens*, renamed the later homonym of *E. flavum* Mutel to *E. Mutelianum* Cogn. and included in this latter species all material now referable to the true *E. patens* Sw.

Stehlé in his treatment, *Les Orchidales, Flore descriptive des Antilles Françaises*, described and illustrated *E. Mutelianum* under the name of *E. pallidiflorum* and *E. patens* under *E. Mutelianum*.

We were fortunate to locate all three type collections. In order to clarify the distinctions among the three species, we are presenting an outline of their floral parts as a visual supplement to the following key:

1. Peduncle short, terete, up to 5 cm. long, surrounded by 1 to 4 lanceolate, basally imbricate, laterally compressed spathes; disc of lip plurituberculate at base. . . . . *E. Mutelianum*.
1. Peduncle elongate, ancipitous, at least 10 cm. long, basally naked; disc of lip with a 3- to 5-dactylate plate at base. . . . . 2.
2. Sepals elliptic; petals broadly ovate-rhombic, much wider than sepals; lip 3-lobed; midlobe linear-oblong with prominent diverging apical lobules; disc with a median keel. . . . . *E. patens*.
2. Sepals lanceolate to linear-oblong; petals linear-oblong, much narrower than sepals; lip 3-lobed; midlobe subquadrate without apical lobules; disc without a median keel. . . . . *E. pallidiflorum*.